UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,075	12/29/2000	Rajesh Kumar	081862.P210	7733

7590 04/26/2005	EXAMINER

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EXAMINER
PHAN, TRI H

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td><td rowspan="2"></td></tr>
<tr><td>09/752,075</td><td>KUMAR ET AL.</td></tr>
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-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 November 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-42</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-6,8-12,14,and 16-42</u> is/are rejected.

7)☐ Claim(s) <u>7,13 and 15</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment/Arguments

1.   This Office Action is in response to the Response/Amendment filed on November 8th,

2004. New claims 24-42 are added. Claims 1-42 are now pending in the application.

Claim Objections

2.   Claims 10 and 11 are objected to because of the following informalities: Applicant is

respectfully suggested to be spelling out the abbreviations of "ERQ" in claim 10 and "ECF" in

claim 11. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

4.   Claims 24 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

In regard to claim 24, line 11, the recitation "...said call's traffic ..." is vague and unclear

whether the limitation refers to. There is insufficient antecedent basis for this limitation in the

claim.

Same rejection's reason for claim 34, line 9, with the recitation "…said call's traffic

…".There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 1-6, 8-12, 14, 16-42 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Shankar** (U.S.6,570,869; hereinafter refer as '**Shankar**') in view of **Li et al.**

(U.S.6,195,714; hereinafter refer as '**Li**').

- In regard to claims 1 and 16, **Shankar** discloses in Figs. 1-5C and in the respective

portions of the specification about the method for communicating voice call over the packet-

switching network (For example see Fig. 1; Abstract; where the packet-switching network can be

an ATM network as disclosed in col. 4, lines 4-20); wherein the original coding unit ("*ATM*

source gateway"; For example see Fig. 1; col. 3, lines 38-64; wherein the originating and

terminating coding unit function as gateways between the respective originating node and the

terminating node and the packet-switching network as disclosed in col. 4, lines 21-25) extracts

the signaling data associated with the voice call and transmits the signaling data with the

respective originating node's network address ("*ATM source identification*") to the originating

signaling unit (*"telephony signaling control network"*) for obtaining (*"sending ATM source

identification from an ATM source gateway to the telephony signaling control network"*; For

example see Fig. 1; col. 4, lines 42-46; col. 5, lines 31-39; col. 14, lines 19-45), the terminating

coding unit (*"ATM destination gateway"*) receives the network address of the originating coding

unit and information for establishing the voice call (*"receiving at the ATM destination gateway

the ATM source identification sent from the telephony signaling control network"*; For example

see Fig.1; col. 4, lines 55-65; col. 5, lines 44-52; col. 14, line 46-56), and wherein the terminating

coding unit (*"ATM destination gateway"*) establishes the bearer channel, e.g. 'virtual circuit', for

the voice call with the originating coding unit (*"ATM source gateway"*) through the packet-

switching network (*"establishing the connection between the ATM destination gateway and the

ATM source gateway"*; For example see col. 5, lines 53-63) with the setup message (*"SETUP

message"*; For example see col. 14, line 46 through col. 15, line 2). **Shankar** does disclose about

the method for establishing the voice call between two end points and the protocol conversion

engine (For example see col. 8, line 58 through col. 9, line 55) for converting the voice call data

from the trunk line, e.g. TDMA, into packets for transmitting through the packet-switching

network, e.g. ATM network (For example see Fig. 1; col. 4, lines 38-64), but fails to explicitly

disclose about the *"ATM-TDM correlation tag"* in the 'sending/receiving the associated

information' between the originating/terminating coding units or the originating/terminating

signaling units for establishing the respective voice call. However, such implementation is

known in the art.

     For example, **Li** discloses in Figs. 1-7 and in the respective portions of the specification

about the system and method for transferring the STM calls, e.g. 'TDM', through the edge nodes

of ATM network, which serve as gateways ("*ATM source/destination gateways*") and configure

to support switched virtual circuit '*SVC*' (For example see Fig. 1A; col. 5, lines 8-50); where the

switch control element of the ATM switch receives and sets up the SVC with the CIC in the

ISUP message (For example see col. 7, lines 5-16) to create the SVC connection request

including the TDM port identification number and VCCI ("*ATM-TDM correlation tag*"; For

example see col. 8, line 27 through col. 9, line 9; col. 11, lines 1-7; wherein the address of the

origination ATM switch, e.g. calling party address or "*ATM source identification*", is added in

the request and setup SVC as disclosed in col. 11, lines 65-67) and send from the origination

ATM switch to the destination ATM switch through the ATM network (For example see Fig. 4

with detail steps for the call setup; col. 9 line 61 through col. 13, line 44).

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to combine the invention as taught by **Li**, by implementing the TDM

port identification number and VCCI in the SVC request and setup message in **Shankar**'s SVC

request and setup message, with the motivation being to rapidly set up and transfer STM calls in

the multi-service ATM network with sustaining PSTN service levels as disclosed in col. 2, lines

19-23, 26-36.

- Regarding claims 2-4, in addition to features in base claim 1 (see rationales pertaining

the rejection of base claim 1 discussed above), **Shankar** further discloses that the OCC and

UCM of the originating signaling unit ("*telephony signaling control network*") send the

proceeding message ("*sending notification of the call*") and create connection message to the

originating coding unit ("*ATM source gateway*") before receiving the network address and the

port number for the selected bearer channel from the originating coding unit (For example see Fig. 4; col. 13, line 63 through col. 14, line 31). **Shankar** does disclose about the 'network address and the port number for the selected bearer channel of the originating coding unit' generating by the originating coding unit (For example see Fig. 4; col. 14, lines 19-31; the "*ATM-TDM correlation tag*" is a number created by the software and hardware by the originating coding unit for associating with the respective voice call; therefore, it can be a "*random number*"), but fails to explicitly disclose about the "*ATM-TDM correlation tag*" in the 'sending/receiving the associated information' between the originating/terminating coding units or the originating/terminating signaling units for establishing the respective voice call. However, such implementation is known in the art.

For example, **Li** discloses in Figs. 1-7 and in the respective portions of the specification about the system and method for transferring the STM calls, e.g. 'TDM', through the edge nodes of ATM network, which serve as gateways ("*ATM source/destination gateways*") and configure to support switched virtual circuit '*SVC*' (For example see Fig. 1A; col. 5, lines 8-50); where the switch control element of the ATM switch receives and sets up the SVC with the CIC in the ISUP message (For example see col. 7, lines 5-16) to create the SVC connection request including the TDM port identification number and VCCI ("*ATM-TDM correlation tag*"; For example see col. 8, line 27 through col. 9, line 9; col. 11, lines 1-7; wherein the address of the origination ATM switch, e.g. calling party address or "*ATM source identification*", is added in the request and setup SVC as disclosed in col. 11, lines 65-67) and send from the origination ATM switch to the destination ATM switch through the ATM network (For example see Fig. 4 with detail steps for the call setup; col. 9 line 61 through col. 13, line 44).

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to combine the invention as taught by **Li**, by implementing the TDM

port identification number and VCCI in the SVC request and setup message in **Shankar's** SVC

request and setup message, with the motivation being to rapidly set up and transfer STM calls in

the multi-service ATM network with sustaining PSTN service levels as disclosed in col. 2, lines

19-23, 26-36.

- In regard to claim 5-6, 12 and 14, in addition to features in base claim 1 (see rationales

pertaining the rejection of base claim 1 discussed above), **Shankar** further discloses about the

UCM generates and transmits the create connection message with the associated trunk

("*notification identifies the trunk line*") to the originating coding unit (For example see col. 14,

lines 4-18); where the trunk line couples between the originating node ("*first telephony

network*") and the originating coding unit (For example see Fig. 1; col. 4, lines 25-27). **Shankar**

does discloses that the originating node within the telephone network, which uses TDMA,

connects with the originating coding unit for transporting voice over the packet-switching

network, which can be ATM network, through the use of the protocol conversion engine, but

fails to explicitly discloses about the "*TDM time slot*". However, using "*time slot*" for carrying

data in the time division multiplexing is well known in the art. Therefore, it would have been

obvious to the person of ordinary skill in the art at the time of the invention was made to

implement the "*time slot*" in the TDM trunk path as taught by **Shankar**, for verifying the

transmitting "time slots" in the time division multiplexing 'TDM'.

- Regarding claims 8-11, 25 and 33, in addition to features in base claim 1 (see rationales

pertaining the rejection of base claim 1 discussed above), **Shankar** further discloses about the

setup message, setup connection request message, create connection message and

acknowledgement messages or 'proceeding message' providing for the connection's setup of the

voice call over the packet-switching network (*"SETUP"*, *"ERQ"*, *"CONNECT"* and *"ECF"*

messages; For example see col. 11, lines 47-52; col. 13, line 11 through col. 15, line 23).

- Regarding claims 24 and 34, **Shankar** discloses in Figs. 1-5C and in the respective

portions of the specification about the program (*"machine readable medium having

instructions"*; For example see Fig. 2; col. 7, line 1-18) and system for providing voice call (*"call

from telephony network"*; For example see Fig. 1) over the packet-switching network (For

example see Fig. 1; Abstract; where the packet-switching network can be an *"ATM network"* as

disclosed in col. 4, lines 4-20); wherein the original coding unit (*"ATM source gateway"*; For

example see Fig. 1; col. 3, lines 38-64; where the originating and terminating coding unit

function as gateways between the respective originating node and the terminating node and the

packet-switching network as disclosed in col. 4, lines 21-25) extracts the signaling data

associated with the voice call and transmits the signaling data with the respective originating

node's network address (*"ATM source identification"*) to the originating signaling unit

(*"telephony signaling control network"*) for obtaining (*"sending ATM source identification from

an ATM source gateway to the telephony signaling control network"*; For example see Fig. 1;

col. 4, lines 42-46; col. 5, lines 31-39; col. 14, lines 19-45), the terminating coding unit (*"ATM

destination gateway"*) receives the network address of the originating coding unit and

information for establishing the voice call ("*receiving at the ATM destination gateway the ATM source identification sent from the telephony signaling control network*"; For example see Fig.1; col. 4, lines 55-65; col. 5, lines 44-52; col. 14, line 46-56), and wherein the terminating coding unit ("*ATM destination gateway*") establishes the bearer channel, e.g. 'virtual circuit' ("*switched virtual circuit*"; For example see col. 5, lines 15-19), for the voice call with the originating coding unit ("*ATM source gateway*") through the packet-switching network ("*establishing the connection between the ATM destination gateway and the ATM source gateway*"; For example see col. 5, lines 53-63) with the setup message ("*SETUP message*"; For example see col. 14, line 46 through col. 15, line 2). **Shankar** does disclose about the method for establishing the voice call between two end points and the protocol conversion engine (For example see col. 8, line 58 through col. 9, line 55) for converting the voice call data from the trunk line, e.g. TDMA, into packets for transmitting through the packet-switching network, e.g. ATM network (For example see Fig. 1; col. 4, lines 38-64), but fails to explicitly disclose about the "*ATM-TDM correlation tag*" in the 'sending/receiving the associated information' between the originating/terminating coding units or the originating/terminating signaling units for establishing the respective voice call. However, such implementation is known in the art.

For example, **Li** discloses in Figs. 1-7 and in the respective portions of the specification about the system and method for transferring the STM calls, e.g. 'TDM', through the edge nodes of ATM network, which serve as gateways ("*ATM source/destination gateways*") and configure to support switched virtual circuit '*SVC*' (For example see Fig. 1A; col. 5, lines 8-50); where the switch control element of the ATM switch receives and sets up the SVC with the CIC in the ISUP message (For example see col. 7, lines 5-16) to create the SVC connection request

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example see col. 8, line 27 through col. 9, line 9; col. 11, lines 1-7; wherein the address of the

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the request and setup SVC as disclosed in col. 11, lines 65-67) and send from the origination

ATM switch to the destination ATM switch through the ATM network (For example see Fig. 4

with detail steps for the call setup; col. 9 line 61 through col. 13, line 44).

Thus it would have been obvious to the person of ordinary skill in the art at the time of

the invention was made to combine the invention as taught by **Li**, by implementing the TDM

port identification number and VCCI in the SVC request and setup message in **Shankar's** SVC

request and setup message, with the motivation being to rapidly set up and transfer STM calls in

the multi-service ATM network with sustaining PSTN service levels as disclosed in col. 2, lines

19-23, 26-36.

- In regard to claims 17-23, 26-32, and 36-42, in addition to features in base claims 1, 24

and 34 (see rationales pertaining the rejection of base claims 1, 24 and 34 discussed above), the

combination of **Li** and **Shankar** does disclose about the information element 'IE' in the setup

message for different types of protocols, but fails to explicitly disclose about the "*Called Party*

Sub Address Information Element (IE)", "*Generic Identifier Transport (GIT) IE*", "*Generic*

Application Transport (GAT) IE", "*User to User IE*", "*Network Call Correlation Identifier*

(NCCI) IE", "*Calling Party Sub Address IE*" and "*Served User Generated Reference (SUGR)*

IE", which are the information elements of the SETUP message. However, these information

elements are defined program objects, which change from system to system and depend on the

system engineering choices in programming for the system; therefore, it is obvious that to the

person of ordinary skill in the art at the time of the invention was made to provide different

information elements in the Application Programming Interface 'API' as disclosed in **Shankar**

or **Li**, to verify the designed information containing in the setup message.

Response to Arguments

7.   Applicant's arguments with respect to claims 2, 4 and 7-22 have been considered but are

moot in view of the new ground(s) of rejection.

Allowable Subject Matter

8.   Claims 7, 13 and 15 are objected to as being dependent upon a rejected base claim (claim

1), but would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Arango et al. (U.S.6,724,747), **Mauger et al.** (U.S.6,882,643) and **Sylvain, Dany D.**

(U.S.6,819,678) are all cited to show devices and methods for improving the communication

architectures between different networks, which are considered pertinent to the claimed

invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272-3126.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BRIAN NGUYEN
PRIMARY EXAMINER

Tri H. Phan
April 21, 2005